



Alban CAT Streamlines Diagnostics and Repair Operations with Reliable Rugged Toughbook Computers

CHALLENGE

Alban CAT required a new mobile computing solution to address hardware device failure and unreliable wireless connectivity in the field.

SOLUTION

Alban CAT deployed the fully-rugged Toughbook® 31 and semi-rugged Toughbook 53 laptops—featuring rugged durability, embedded mobile broadband and unique enterprise-grade functionality—to its field workforce throughout the region.

RESULTS

After deploying the Panasonic Toughbook solution, Alban CAT technicians streamlined diagnostics and repair operations, improved customer service times, enhanced employee and customer satisfaction, and greatly reduced device failure.



“The Toughbook computers have been a great help for dealing with vibrations and EMF on big generator sites. Easier portability with daylight viewable screens and integrated handles are also a big hit with our guys.”

Founded in 1927, Alban CAT is a fourth generation family-owned and operated Caterpillar dealer. The company got its start as Alban Tractor Co. exclusively selling tractors to assist in road construction as the nation’s interstate highway system was being built. Through the years, the company changed its name to Alban CAT and expanded its services and offerings to meet the needs of its growing customer base and the growing infrastructure needs of the region. Presently, the company operates 17 offices and provides a complete line of Caterpillar machines, power systems, parts and service to customers throughout the mid-Atlantic region in Maryland, Delaware, Virginia and West Virginia.

Alban CAT employs a staff of field service technicians trained to diagnose, maintain and repair equipment on-site throughout the service territory. From earthmoving services to truck, power systems, industrial and marine services, Alban CAT technicians operate in extreme service environments that can range from extreme heat to freezing cold to harsh ocean moisture. In order to provide real-time troubleshooting and repair, technicians are outfitted with rugged mobile devices capable of performing in direct sunlight, and withstanding rain and ocean water sprays, drops, electromagnetic fields, shock and vibration.

Alban CAT’s technicians depend on these devices as a critical tool in their inventory. Until recently, the company deployed mobile devices from a competing manufacturer. These competing devices would show a high failure rate in the course of business after a few years. These device failures increasingly began to adversely affect business operations, service time and workforce efficiency. Additionally, unreliable technology began to spur employee frustration and placed financial strain on Alban CAT’s IT department with mounting repair and replacement costs.

Device failures also negatively affected Alban CAT’s customers. Each incomplete service visit would inconvenience the customer, extend service visits and delay others, and sometimes drive additional costs. For instance, Alban CAT provides a service called a “sea trial” in order to measure a vessel’s performance and general seaworthiness. Each sea trial requires at least an hour to complete and expends large quantities of diesel fuel—a pricey commodity. An equipment breakdown during one of these sea trials would force technicians to cancel the visit or start over, wasting the customer’s precious time, money and resources.

“As time went on, the quality of these products seemed to diminish greatly,” says Nancy Schilling, IT Manager for Alban CAT. “They caused problems and frustration for our technicians when they would crash. If you can imagine the cost of diesel fuel to move one of the giant tugboats around the harbor for an hour—it was becoming a huge problem.”



In addition to device failures, technicians struggled with wireless connectivity issues. Because their previous computers lacked embedded wireless broadband, technicians relied solely on USB or MiFi mobile wireless drives in order to establish network connections. In the line of duty, many of the wireless drives would snap off, break or become misplaced, resulting in additional complications, inefficiencies and productivity losses.

A TOUGH AND RELIABLE SOLUTION

After learning of other Caterpillar dealers’ success with Panasonic Toughbook® mobile computers, Alban CAT worked with Bizco, a Panasonic reseller, to help the company evaluate and determine a suitable replacement for its failing laptops. Together with Bizco, Alban CAT’s IT department evaluated a number of rugged mobile devices for field service use. The evaluation period included head-to-head comparisons of a number of key elements that were critical to operations, including durability, embedded wireless broadband, performance, connectivity options, and overall total cost of ownership and return on investment.

After careful evaluation, Alban CAT decided on the fully-rugged Toughbook 31 laptop, featuring a sealed all-weather design, and the semi-rugged Toughbook 53 laptop featuring a 14” HD LED sunlight-viewable screen, and moisture and dust-resistant keyboard. Because of the frequent exposure to marine environments,



Alban CAT was also impressed by the Toughbook computers' enhanced connectivity. Previously, technicians used a USB/RS 232 Serial Port Adapter to connect to the electronic control module (ECM) of the machines they were servicing. When connected to an ECM, a technician has the ability to diagnose existing and potential problems, configure the product and obtain data for analysis. Both the Toughbook 31 and Toughbook 53 feature optional 9-pin serial ports, which allow the computers to connect directly to legacy equipment, eliminating the former occurrence of disconnection and disruption of service with USB adapters.

"We tried a couple other rugged manufacturers initially to get an idea of the other players out there, and a major difference with Panasonic was how much time they spent with us in the beginning listening to our needs," said Schilling. "The overwhelming feedback from my team has been positive and the Toughbook computers have definitely lived up to all of our expectations" she concluded.

Since deploying the Toughbook laptops, Alban CAT has greatly improved efficiency and productivity throughout its workforce. Free from concerns of device failure and managing multiple accessories, technicians can visit more customers, perform duties faster and provide quality service without issue.

it was critical for the new devices to be able to withstand exposure to liquid, drops and spills. Fully-rugged Toughbook computers are MIL-STD-810G and IP65 certification for resistance against shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, humidity and explosive atmosphere.

Technicians also service standalone generators, which expose them to EMFs (electromagnetic fields) that can interfere or adversely affect the behavior of their mobile devices. The Toughbook 31 is MIL-STD-461F rated to ensure it does not emit or experience interference from unwanted electromagnetic energy, allowing technicians to work in close proximity to EMF and rest assured their devices will perform reliably.

According to Schilling, "The Toughbook computers have been a great help for dealing with vibrations and EMF on big generator sites. Easier portability with daylight viewable screens and integrated handles are also a big hit with our guys."

Panasonic Toughbook computers provide mobile broadband connectivity embedded within the devices. The previous solution lacked internal wireless, which meant an extra piece of equipment was required to stay connected in the field. With one less piece of equipment to handle, technicians can now more effectively focus on their duties and experience reliable wireless connection throughout their territory.

